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| A. Garulli   | 1563 | Robust control: the parametric approach by S. P. Bhattacharyya, H. Chapellat and L. H. Keel |

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## SURVEY PAPER

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| T. F. Edgar, S. W. Butler, W. J. Campbell, C. Pfeiffer, C. Bode, S. B. Hwang, K. S. Balakrishnan and J. Hahn | 1567 | Automatic control in microelectronics manufacturing: Practices, challenges, and possibilities |
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## REGULAR PAPERS

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| S. Bittanti and M. Lovera                 | 1605 | Bootstrap-based estimates of uncertainty in subspace identification methods              |
| T. A. Johansen                            | 1617 | Computation of Lyapunov functions for smooth nonlinear systems using convex optimization |
| M. Nørgaard, N.K. Poulsen and O. Ravn     | 1627 | New developments in state estimation for nonlinear systems                               |
| M. Lovera, T. Gustafsson and M. Verhaegen | 1639 | Recursive subspace identification of linear and non-linear Wiener state-space models     |

## BRIEF PAPERS

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| S. Majhi and D. P. Atherton                         | 1651 | Obtaining controller parameters for a new Smith predictor using autotuning                        |
| P. Micheau and P. Coirault                          | 1659 | Adaptive controller using filter banks to reject multi-sinusoidal disturbance                     |
| I. Ioslovich and P.-O. Gutman                       | 1665 | Optimal control of crop spacing in a plant factory  |
| M. I. Gil   | 1669 | On Aizerman-Myshkis problem for systems with delay  |
| M. Zeren and H. Özbay                               | 1675 | On the strong stabilization and stable $H^\infty$ -controller design problems for MIMO systems    |
| P. M. Mäkilä and J. R. Partington                   | 1685 | Robustness in $H_2$ identification  |
| K. H. You and E. B. Lee                             | 1693 | BIBO stability integral ( $L_2$ -gain) for second-order systems with numerator dynamics           |
| J. W. Lee, Y. Chait and M. Steinbuch                | 1701 | On QFT tuning of multivariable $\mu$ controllers  |
| A. S. Shiriaev and A. L. Fradkov                    | 1709 | Stabilization of invariant sets for nonlinear non-affine systems                                  |
| B. M. Chen, I. M. Y. Mareels, Y. Zheng and C. Zhang | 1717 | Solutions to disturbance decoupling problem with constant measurement feedback for linear systems |
| L. Cao and H. Schwartz                              | 1725 | A directional forgetting algorithm based on the decomposition of the information matrix           |
| G. De Nicolao, G. Ferrari-Trecate and G. Sparacino  | 1733 | Fast spline smoothing via spectral factorization concepts   |
| W. E. Dixon, Z. P. Jiang and D. M. Dawson           | 1741 | Global exponential setpoint control of wheeled mobile robots: a Lyapunov approach                 |
| F. Hamelin and D. Sauter                            | 1747 | Robust fault detection in uncertain dynamic systems   |
| <b>TECHNICAL COMMUNIQUE</b>                         |      |   |
| E.-S. Choi and B.-H. Ahn                            | 1755 | More on the applications of the contraction mapping method in robotics                            |
| Z.-L. Deng and Y. Xu                                | 1761 | Descriptor Wiener state estimators  |
| N. E. Wu, K. Zhou and G. Salomon                    | 1767 | Control reconfigurability of linear time-invariant systems  |

## BOOK REVIEWS

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| V. M. Becerra | 1773 | Autotuning of PID controllers: relay feedback approach by Cheng-Ching Yu  |
| K. Gu         | 1775 | Stability and stabilization of infinite dimensional systems with applications by Zheng-Hua Luo, Bao-Zhu Guo and Omer Morgul |

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## SURVEY PAPER

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| S. Bittanti and P. Colaneri | 1777 | Invariant representations of discrete-time periodic systems |
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## REGULAR PAPERS

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| J. K. Tugnait and Y. Zhou                                       | 1795 | On closed-loop system identification using polyspectral analysis given noisy input-output time-domain data |
| Z. Szabó, P. S. C. Heuberger, J. Bokor and P. M. J. Van den Hof | 1809 | Extended Ho–Kalman algorithm for systems represented in generalized orthonormal bases                      |
| F. Bullo  | 1819 | Stabilization of relative equilibria for underactuated systems on Riemannian manifolds                     |
| T. Zhang, S. S. Ge and C. C. Hang                               | 1835 | Adaptive neural network control for strict-feedback nonlinear systems using backstepping design            |

## BRIEF PAPERS

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| C. S. Hsieh and F. C. Chen                                     | 1847 | Modified stochastic Luenberger observers  |
| A. Leva and A. M. Colombo                                      | 1855 | Estimating model mismatch overbounds for the robust autotuning of industrial regulators                     |
| M. Fabian and R. Kumar   | 1863 | Mutually nonblocking supervisory control of discrete event systems  |
| R. Marino and P. Tomei   | 1871 | Adaptive output feedback tracking with almost disturbance decoupling for a class of nonlinear systems       |
| F. P. Skantze, A. Kojić, A.-P. Loh and A. M. Annaswamy         | 1879 | Adaptive estimation of discrete-time systems with nonlinear parameterization                                |
| W. J. R. Velthuis, T. J. A. de Vries, P. Schaak and E. W. Gaal | 1889 | Stability analysis of learning feed-forward control   |
| L. Xie, D. Xue and S. K. Tso                                   | 1897 | On the two-degree-of-freedom Wiener–Hopf optimal design with tracking and disturbance rejection constraints |

## TECHNICAL COMMUNIQUE

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| P. M. Mäkilä and J. Järvinen | 1905 | On model and filter sensitivity  |
| J.-X. Xu and W.-J. Cao       | 1909 | Synthesized sliding mode and time-delay control for a class of uncertain systems |
| G. Besançon                  | 1915 | Global output feedback tracking control for a class of Lagrangian systems        |

## CORRESPONDENCE

- |                            |      |   |
|----------------------------|------|---|
| M.-G. Yoon                 | 1923 | A comment on “ $L_\infty$ optimal control of SISO continuous-time systems”                          |
| M. Sznajder and Z.-Q. Wang | 1927 | Author’s reply: “A comment on $\mathcal{L}_\infty$ optimal control of SISO continuous-time systems” |

## BOOK REVIEWS

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|--------------------------------|------|---|
| S. E. Shladover                | 1929 | Automated highway systems by P. A. Ioannou  |
| R. Ballini and F. J. Von Zuben | 1931 | Application of neural networks to adaptive control of nonlinear systems by G. W. Ng |

